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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/664,106	09/17/2003	Tsun-Yu Chang	01010A	4731

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EXAMINER

MERCADO, JULIAN A

ART UNIT	PAPER NUMBER
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1745

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/07/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/664,106

Applicant(s)

CHANG ET AL.

Examiner

Julian Mercado

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

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DETAILED ACTION

Remarks

This Office action is responsive to applicant's amendment filed on December 6, 2006.

Claims 1-21 are pending.

Claim Objections

The objection to claim 6 for minor informalities has been withdrawn.

Claim Rejections - 35 USC § 112

The rejection of claims 1-21 under 35 U.S.C. 112, second paragraph has been withdrawn.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 5-8, 10, 12-15, 18 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 97/08763 to Yamashita et al.

The rejection is maintained for the reasons of record and for the additional reasons to follow. At the outset, the examiner notes that the present amendment now further reciting that the polymers P₁ and P₂ are each soluble to a degree for forming a polymeric solution and that

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each of polymers P_1 and P_2 and each of particular materials M_1 and M_2 remains solid in the presence of a solvent appears to have been submitted to overcome the 35 U.S.C. 112, second paragraph rejection (now withdrawn). The amendment further recites that the opposing spaced relationship of each cathode to each anode is maintained by the binding of each anode to each cathode provided by polymers P_1 and P_2 . To this extent, applicant submits that the second separator does not have any binding function. In reply, it is asserted that in Yamashita et al. “particles of at least one insulating substance are uniformly coated on the surface of each cathode active material layer 11b, followed by *bonding* the particles to the surface of each cathode active material layer 11b by...” Emphasis added, see col. 13 line 6 et seq. and also see col. 14 line 49 et seq. for a similar disclosure drawn to the separator for the anode active material layer.

As to the present invention having “no possible loss of contact between the polymer layers” as compared to Yamashita et al. insofar as the interface of the polymer layers being “not necessarily a constant separation distance and the distance can change when slight gassing results during cycling”, applicant is reminded that attorney arguments are not evidence and cannot take place of evidence in the record; an assertion of what may be possible or what may change or what is not necessarily constant configuration is just attorney argument and not the kind of factual evidence that is required to rebut a prima facie case of obviousness, much less a teaching that is otherwise anticipatory. MPEP 2145.

Arguments drawn to a battery not requiring external means to maintain the structure thereof have been fully considered, however, the scope of the present claims are silent on any limitation which excludes external means for structural purposes. Additionally, the claims are also silent on any type of negative limitation which would effectively preclude such external

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means or external force. Notwithstanding, this line of argument appears to attempt to distinguish the claimed invention from Yamashita et al. insofar as the former allegedly having a novel binding function—this argument is not persuasive for the reasons set forth *supra*.

Arguments drawn to the polymer P₁ of Yamashita et al. not being bound to polymer P₂ has been fully considered but is not persuasive. (emphasis as submitted) The claims merely require a first and second separator/binder comprising polymer P₁ and P₂, respectively, and in fact more precisely recite “two layers of differing porous separators/binders....” (emphasis added) There is nothing in the claims that specifically recite the polymer P₁ of the claimed invention being bound to polymer P₂.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 9, 16, 17, 19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 97/08763. (Yamashita et al.)

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO 97/08763. (Yamashita et al.) in view of Kawakami et al. (U.S. Pat. 5,582,931)

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO 97/08763 (Yamashita et al.) in view of Ohsawa et al. (U.S. Pat. 5,225,296)

The rejection(s) is maintained for the reasons of record. Arguments for patentability against each of the 35 U.S.C. 103(a) rejections is premised on the 35 U.S.C. 102(b) rejection based on Yamashita et al. being withdrawn. As the 35 U.S.C. 102(b) rejection based on Yamashita et al. is maintained for the reasons of record and for the additional reasons set forth in this Office action, the 35 U.S.C. 103(a) based on the same either singly or in view of either Kawakami et al. or Ohsawa et al. is maintained for the reasons of record.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julian Mercado whose telephone number is (571) 272-1289. The examiner can normally be reached on Monday through Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan, can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

A handwritten signature in black ink, appearing to be "P. Ryan", with a large loop at the bottom left.A small handwritten signature in black ink, appearing to be "P. Ryan", located above the printed name.

PATRICK JOSEPH RYAN
SUPERVISORY PATENT EXAMINER